

We claim:

1. An absorbent article comprising a pouch filled at least in part with free-flowing cellulosic nits, the nits comprising papermaking fibers and a nit conditioner effective to improve free flow of the nits as compared to the nits without the nit conditioner.
2. The absorbent article of Claim 1, wherein the nit conditioner comprises a chemical additive selected from a debonder, a dispersant, a lubricant, and a surfactant
3. The absorbent article of Claim 2, wherein the chemical additive is a debonder.
4. The absorbent article of Claim 3, wherein the debonder comprises a cationic polymer.
5. The absorbent article of Claim 2, wherein the chemical additive is hydrophilic.
6. The absorbent article of Claim 2, wherein the chemical additive is hydrophobic.
7. The absorbent article of Claim 1, wherein the nit conditioner comprises a silicone compound.

8. The absorbent article of Claim 7, wherein the silicone compound is amphoteric.

9. The absorbent article of Claim 1, wherein the nit conditioner comprises an oil or a wax.

10. The absorbent article of Claim 1, wherein the nit conditioner has a mass of about 0.1% or greater of the dry mass of the nits.

11. The absorbent article of Claim 1, wherein the nit conditioner comprises a surfactant selected from anionic and nonionic surfactants.

12. The absorbent article of Claim 1, wherein the nits have an AUL value of about 10 grams/gram or greater.

13. The absorbent article of Claim 1, wherein the nits have a Centrifuge Retention Capacity value of about 1.5 or greater.

14. The absorbent article of Claim 1, wherein the nits have an angle of repose of about 70° or less.

15. The absorbent article of Claim 1, wherein the nits comprise about 50% or greater by weight of eucalyptus fibers.

16. The absorbent article of Claim 1, wherein at least 90% by weight of the nits have a particle size range from 100 microns to 800 microns as determined by sieve analysis.

17. The absorbent article of Claim 1, wherein the nits have been prepared in a predetermined manner and wherein the nits have a substantially higher absorbent capacity than nits prepared in a manner identical to the predetermined manner but without the addition of the chemical additive, and wherein the chemical additive is substantially nonabsorbent.

18. The absorbent article of Claim 1, wherein the nits are substantially free of particles greater than 850 microns.

19. The absorbent article of Claim 1, further comprising superabsorbent particles within the pouch.

20. The absorbent article of Claim 1, wherein the pouch has a width of less than about 3 cm.

21. An absorbent article for use on the body of a wearer, the absorbent article having a longitudinal axis, a transverse axis, two longitudinal sides, a target zone and a body side, comprising:

- a) a liquid impervious backsheet;
- b) a liquid pervious topsheet attached to the backsheet;
- c) a conformable intake member comprising a pouch containing free-flowing particles;

- d) an outer shaping member laterally surrounding the pouch; and
- e) a wicking barrier between at least a portion of the pouch and the outer shaping member.

22. The absorbent article of Claim 21, wherein the pouch has a width of less than about 5 cm and a length of about 10 cm or greater.

23. The absorbent article of Claim 21, wherein the free-flowing particles comprise hardwood nits.

24. The absorbent article of Claim 21, wherein the free-flowing particles comprise one of polymeric beads, hollow spheres, and mineral particles.

25. The absorbent article of Claim 21, wherein the free-flowing particles comprise at least about 30% nits by weight and no more than about 30% mineral matter by weight.

26. The absorbent article of Claim 21, wherein the free-flowing particles are substantially free of clay.

27. The absorbent article of Claim 21, wherein at least 25% by mass of the free-flowing particles have a particle size above 300 microns.

28. The absorbent article of Claim 21, wherein the free-flowing particles have a mean particle size between about 300 microns and about 600 microns.

29. The absorbent article of Claim 21, wherein the free-flowing particles have a Centrifuge Retention Capacity of about 1.5 g/g or greater.

30. The absorbent article of Claim 21, wherein the free-flowing particles have a Flowability Coefficient of about 2 or greater.

31. The absorbent article of Claim 21, wherein the pouch further comprises an odor control agent.

32. The absorbent article of Claim 21, wherein the free-flowing particles further comprise one of an odor-control agent, an anti-microbial agent, and a surfactant.

33. The absorbent article of Claim 21, wherein the free-flowing particles further comprise an enzyme.

34. The absorbent article of Claim 21, further comprising superabsorbent particles within the pouch.

35. The absorbent article of Claim 21, wherein the free-flowing particles comprise cellulosic fibers and one of a debonder, a lubricant, a silicone compound, and a surfactant.

36. The absorbent article of Claim 21, wherein the free-flowing particles comprise cellulosic fibers treated with a quaternary amine debonder agent.

37. The absorbent article of Claim 21, wherein the free-flowing particles comprise cellulosic nits with added hydrophobic matter on at least a portion of the surface of the nits.

38. The absorbent article of Claim 21, wherein the free-flowing particles comprise cellulosic nits treated with 0.02% to 4% by weight of added hydrophobic matter.

39. The absorbent article of Claim 21, wherein the wicking barrier is a polymeric film.

40. An absorbent article for use on the body of a wearer, the absorbent article having a longitudinal axis, a transverse axis, two longitudinal sides, a target zone and a body side, the absorbent article comprising:

- a) a liquid impervious backsheet;
- b) a liquid pervious topsheet attached to the backsheet;
- c) a conformable intake member comprising a pouch containing free-flowing particles;
- d) an outer shaping member laterally surrounding the pouch; and
- e) a wicking barrier between at least a portion of the pouch and the outer shaping member,

wherein the free-flowing particles have a Centrifuge Retention Capacity of about 1.5 g/g or greater.

41. An absorbent article for use on the body of a wearer, the absorbent article having a longitudinal axis, a transverse axis, two longitudinal sides, a target zone and a body side, the absorbent article comprising:

- a) a liquid impervious backsheet;
- b) a liquid pervious topsheet attached to the backsheet;
- c) a conformable intake member comprising a pouch containing free-flowing particles; and
- d) an outer shaping member laterally surrounding the pouch,

wherein the free-flowing particles have a Flowability Coefficient of about 2 or greater.

42. The absorbent article of Claim 41, wherein the free-flowing particles also have a Centrifuge Retention Capacity of about 1.5 g/g or greater.

43. The absorbent article of Claim 41, wherein the pouch has a width of less than about 5 cm and a length of about 10 cm or greater.

44. The absorbent article of Claim 41, wherein the free-flowing particles comprise hardwood nits.

45. The absorbent article of Claim 41, wherein the free-flowing particles comprise one of polymeric beads, hollow spheres, and mineral particles.

46. The absorbent article of Claim 41, wherein the free-flowing particles comprise at least about 30% nits by weight and no more than about 30% mineral matter by weight.

47. The absorbent article of Claim 41, wherein the free-flowing particles are substantially free of clay.

48. The absorbent article of Claim 41, wherein at least 25% by mass of the free-flowing particles have a particle size above 300 microns.

49. The absorbent article of Claim 41, wherein the free-flowing particles have a mean particle size between about 300 microns and about 600 microns.

50. The absorbent article of Claim 41, wherein the free-flowing particles have a Centrifuge Retention Capacity of about 1.5 g/g or greater.

51. The absorbent article of Claim 41, wherein the pouch further comprises an odor control agent.

52. The absorbent article of Claim 41, wherein the free-flowing particles further comprise one of an odor-control agent, an anti-microbial agent, and a surfactant.

53. The absorbent article of Claim 41, wherein the free-flowing particles further comprise an enzyme.

54. The absorbent article of Claim 41, further comprising superabsorbent particles within the pouch.



55. The absorbent article of Claim 41, wherein the free-flowing particles comprise cellulosic fibers and one of a debonder, a lubricant, a silicone compound, and a surfactant.

56. The absorbent article of Claim 41, wherein the free-flowing particles comprise cellulosic fibers treated with a quaternary amine debonder agent.

57. The absorbent article of Claim 41, wherein the free-flowing particles comprise cellulosic nits with added hydrophobic matter on at least a portion of the surface of the nits.

58. The absorbent article of Claim 41, wherein the free-flowing particles comprise cellulosic nits treated with 0.02% to 4% by weight of added hydrophobic matter, based on the total weight of the free-flowing particles and added hydrophobic matter.

59. The absorbent article of Claim 41, wherein the wicking barrier is a polymeric film.